**SUPREMA OUTDOOR COMPACT RFID READER – XPass D2(XPD2-MDB)**

**TECHNICAL SPECIFICATIONS**

2023-06-29

# PART 1 - GENERAL

The intent of this document is to specify the minimum criteria for the design, supply, installation, and commissioning of the XPass D2 (XPD2-MDB).

* 1. SUMMARY

1. An OSDP enabled RF reader, capable of scanning and registering RFID cards.
   1. REFERENCE
2. Standards
3. FCC - Code of Federal Regulations, Title 47, Part 15, Class B
4. Conformity for Europe (CE) - R&TTE Directive 1999/5/EC
5. Industry Canada (IC)
6. Korea Certification (KC)
7. Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) - (EC No. 1907/2006)
8. The Waste Electrical and Electronic Equipment (WEEE) - Directive 2012/19/EU
9. UK Conformity Assessed (UKCA)
10. Regulatory Compliance Mark (RCM)
11. ANSI / IEC60529 – Degrees of Protection Provided by Enclosures
12. International Electrotechnical Commission (IEC) – Ingress Protection Rating IP65
13. International Electrotechnical Commission (IEC) – Ingress Protection Rating IP67
14. IEC 62262 - Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts IK08
    1. SUBMITTALS
    2. QUALIFICATIONS
15. Manufacturer shall be ISO 9001 certified with a minimum of five years’ experience in producing access control equipment.
16. Installers shall be trained by the Manufacturer to install, configure and commission the access control system.
    1. WARRANTY
17. Manufacturer shall provide a limited ( ) month warranty for the product to be free of defect in material and workmanship.

END OF SECTION

# PART 2 - PRODUCTS

1. EQUIPMENT
2. Manufacturer   
   Suprema Inc.   
   17F Parkview Office Tower, 248, Jeongjail-ro, Seongnam-si, Gyeonggi-do, 13554, Republic of Korea  
   Tel: 82-31-783-4502, Fax: 82-31-783-4503, [https://www.supremainc.com](https://www.supremainc.com/)  
   [https://support.supremainc.com](https://support.supremainc.com/)
3. Model(s): XPass D2 (XPD2-MDB)
4. Alternates: NONE
5. DESCRIPTION
6. The RF reader which is an RS-485(OSDP) enabled device capable of scanning RFID cards and mobile cards.
7. FEATURES
8. Multi-RFID card reading
9. Mobile card support (NFC, BLE)
10. IP65, IP67, Dust & Waterproof
11. IK08, Vandal proof
12. Mullion type design
13. RS-485, Wiegand, Tamper
14. OSDP V2 Compliant
15. SPECIFICATIONS

|  |  |  |
| --- | --- | --- |
| **Category** | **Feature** | **Specification** |
| Credential | LF card option | EM |
| HF card option | MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3**1)**, FeliCa |
| NFC card | Supported |
| BLE card | Supported |
| RF read range**2)** | MIFARE/DESFire/EM: 50 mm, FeliCa: 30 mm |
| General | CPU | 80 MHz |
| Memory | 512 KB Flash + 160 KB RAM |
| Crypto chip | Supported |
| LED | Multi-color |
| Sound | Multi-tone Buzzer |
| Operating temperature | -35 °C ~ 65 °C |
| Storage temperature | -40 °C ~ 70 °C |
| Operating humidity | 0 % ~ 95 %, non-condensing |
| Storage humidity | 0 % ~ 95 %, non-condensing |
| Dimension (W x H x D) | 48 x 144.7 x 27 (mm) |
| Weight | * Device: 117g * Bracket: 30g (Including washer and bolt) |
| IP rating | IP65, IP67 |
| IK rating | IK08 |
| Certificates | CE, UKCA, KC, FCC, IC, RCM, BIS, SIG, RoHS, REACH, WEEE |
| Interface | RS-485 | 1ch |
| Wiegand | 1ch |
| LED | 2ch |
| Beep | 1ch |
| Tamper | Supported |
| Electrical | Power | * Voltage: 12 Vdc * Current: Max. 0.3 A |
| Switch input VIH | * Min.: 3V * Max.: 5V |
| Switch input VIL | Max.: 1V |
| Switch Pull-up resistance | 4.7 kΩ (The input ports are pulled up with 4.7 kΩ.) |
| Wiegand output VOH | Min.: 4.8 V |
| Wiegand output VOL | Max.: 0.2 V |
| Wiegand output Pull-up resistance | Internally pulled up with 1 kΩ |
| Platform | BioStar 2 | Supported |
| BioStar 1 | Not Supported |

1) DESFire EV2/EV3 cards are supported by having backward compatibility of DESFire EV1 cards. CSN and smart card functions are compatible with XPass D2.

2) RF read range will vary depending on installation environment.

END OF SECTION

# PART 3 - EXECUTION

1. INSTALLER
2. Contractor personnel shall comply with all applicable state and local licensing requirements.
3. PREPARATION
4. Contractor shall avoid locating the reader/controller in a location subject to direct sunlight, dust or soot.
5. STORAGE
6. The device shall be stored in an environment where temperature is in the range of -40°C - +70°C.
7. The device shall be stored in an environment where humidity is in the range of 0% - 95%, non-condensing.
8. INSTALLATION
9. The device shall be installed in an environment where temperature is in the range of -35°C - 65°C.
10. The device shall be installed in an environment where humidity is in the range of 0% - 95%, non-condensing.
11. All wires shall be run through conduit to prevent failure caused by rodent damage.
12. Connections between card readers and a door controller shall not exceed 100 meters.
13. All peripheral devices shall be grounded.
14. To avoid RF interference, a minimum separation distance must be maintained.

|  |  |
| --- | --- |
| Wall thickness | Distance |
| 100 mm | 360 mm |
| 120 mm | 360 mm |
| 150 mm | 300 mm |

1. EXAMINATION
2. All connections to the reader/controller shall be tested for proper levels of performance.

END OF SECTION